

IN THE CLAIMS:

Claim 1 (currently amended): Apparatus for inserting a surgical fastener through a plurality of portions of material from within an endovascular pathway, said apparatus comprising:

a surgical fastener having first and second ends and made from a material which enables said fastener to be transformed from a first stressed elongate shape to a second unstressed shape upon the release of said fastener from a stressed condition, said the first stressed elongate shape of said fastener enabling said the first end to be extended through a plurality of layers of material, and with said the second shape of the said fastener being in the form of a spring with a plurality of coils around a spring axis, with said the coils being spring biased towards each other along said the spring axis with sufficient axial force ~~so as~~ to enable the coils on opposite sides of the layers of material to clamp the layers of material together along the spring axis;

a plurality of delivery ~~tube~~ tubes, each having third and fourth ends, and first and second tube portions adjacent to said the third and fourth ends, respectively, and forming a longitudinal axis between

the third and fourth ends, said delivery tubes each including a material which enables transformation from a third stressed elongate shape to a fourth unstressed shape upon the release from a stressed condition to an unstressed condition, said the third stressed elongate shape enabling said the third end to be extended through an endovascular pathway, said the fourth unstressed shape being formed with said the first and second tube portions being configured at an angle to one another;

a delivery tube deployment tube directly engaging said delivery tubes, said delivery tube deployment tube being configurable between a first position and a second position, said the first position of said delivery tube deployment tube restraining said delivery tubes in said the third stressed elongate shape, and said the second position of said delivery tube deployment tube releasing said delivery tubes in the fourth unstressed shape, whereby each of said delivery tubes is controlled by said delivery tube deployment tube;

penetration means adjacent said the third end of said each of said delivery tubes, said penetration

means being configured to pierce through a vascular structure in the endovascular pathway; and

insertion means adjacent to said the third end of each of said delivery tubes, said insertion means being configured to place said surgical fastener through the vascular structure pierced by said penetration means.

Claim 2 (canceled).

Claim 3 (currently amended): Apparatus ~~for endovascular surgery~~ according to claim 1 wherein said the fastener material has super-elastic properties.

Claim 4 (currently amended): Apparatus ~~for endovascular surgery~~ according to claim 3 wherein said super-elastic material is Nitinol.

Claim 5 (currently amended): Apparatus for ~~endovascular surgery according to claim 1 wherein said inserting a surgical fastener through a plurality of portions of material from within an endovascular pathway, said apparatus comprising:~~

a surgical fastener having first and second ends  
and made from a material which enables said fastener to

be transformed from a first stressed elongate shape to  
a second unstressed shape upon the release of said  
fastener from a stressed condition, the first stressed  
elongate shape of said fastener enabling the first end  
to be extended through a plurality of layers of  
material, and with the second shape of the fastener  
being in the form of a spring with a plurality of coils  
around a spring axis, with the coils being spring  
biased towards each other along the spring axis with  
sufficient axial force to enable the coils on opposite  
sides of the layers of material to clamp the layers of  
material together along the spring axis;

a plurality of delivery tubes each having third  
and fourth ends, and first and second tube portions  
adjacent to the third and fourth ends, respectively,  
and forming a longitudinal axis between the third and  
fourth ends, said delivery tubes each including a  
material which enables transformation from a third  
stressed elongate shape to a fourth unstressed shape  
upon the release from a stressed condition to an  
unstressed condition, the third stressed elongate shape  
enabling the third end to be extended through an  
endovascular pathway, the fourth unstressed shape being

formed with the first and second tube portions being  
configured at an angle to one another;

a delivery tube deployment tube directly engaging  
said delivery tubes, said delivery tube deployment tube  
being configurable between a first position and a  
second position, the first position of said delivery  
tube deployment tube, restraining said delivery tubes  
in the third stressed elongate shape, and the second  
position of said delivery tube deployment tube  
releasing said delivery tubes in the fourth unstressed  
shape;

penetration means adjacent the third end of each  
of said delivery tubes, said penetration means being  
configured to pierce through a vascular structure in  
the endovascular pathway and comprising a sharpened  
cutting edge formed on said the third end of said  
delivery tube; and

insertion means adjacent to the third end of each  
of said delivery tubes, said insertion means being  
configured to place said surgical fastener through the  
vascular structure pierced by said penetration means.

Claim 6 (currently amended): Apparatus ~~for endovascular~~  
~~surgery~~ according to claim 1 wherein said further

penetration means is comprises a sharpened cutting edge formed on said the first end of said surgical fastener.

Claim 7 (currently amended): Apparatus ~~for endovascular surgery~~ according to claim 1 wherein the angle of said the second unstressed shape of said delivery tube formed with said the first and second tube portions angled to one another is dependent on the diameter of said the vascular structure of the endovascular pathway.

Claim 8 (currently amended): Apparatus ~~for endovascular surgery~~ according to claim 1 wherein said insertion means is a plunger ~~being~~ configured within said delivery tube, said plunger having first and second portions, said the first and second portions being configured adjacent said the third and fourth ends of said delivery tube, respectively, said the first end of said plunger being configured adjacent said the second end of said fastener, whereby movement of said plunger a predetermined distance toward the third end of said delivery tube forces said fastener through said the vascular structure a distance corresponding to said the predetermined distance.

Claim 9 (currently amended): Apparatus ~~for endovascular surgery~~ according to claim 1 further comprising a guide wire having a ~~given~~ selected stiffness for allowing positioning within the endovascular pathway of ~~said~~ the vascular structure, said guide wire having a longitudinal axis, ~~said~~ the first stressed elongate shape of said delivery tube being configured in parallel to said guide wire.

Claim 10 (currently amended): Apparatus ~~for endovascular surgery~~ according to claim 9 further ~~including~~ comprising a balloon catheter supported by said guide wire.

Claim 11 (currently amended): Apparatus ~~for endovascular surgery~~ according to claim 10 wherein said balloon catheter provides a reference for ~~the~~ proper placement of said fasteners.

Claim 12 (currently amended): Apparatus for ~~endovascular surgery according to claim 1~~

inserting a surgical fastener through a plurality of portions of material from within an endovascular pathway, said apparatus comprising:

a surgical fastener having first and second ends and made from a material which enables said fastener to be transformed from a first stressed elongate shape to a second unstressed shape upon the release of said fastener from a stressed condition, the first stressed elongate shape of said fastener enabling the first end to be extended through a plurality of layers of material, and with the second shape of the fastener being in the form of a spring with a plurality of coils around a spring axis, with the coils being spring biased towards each other along the spring axis with sufficient axial force to enable the coils on opposite sides of the layers of material to clamp the layers of material together along the spring axis;

a plurality of delivery tubes, each having third and fourth ends, and first and second tube portions adjacent to the third and fourth ends, respectively, and forming a longitudinal axis between the third and fourth ends, said delivery tubes each including a material which enables transformation from a third stressed elongate shape to a fourth unstressed shape

upon the release from a stressed condition to an unstressed condition, the third stressed elongate shape enabling the third end to be extended through an endovascular pathway, the fourth unstressed shape being formed with the first and second tube portions being configured at an angle to one another;

a delivery tube deployment tube directly engaging said delivery tubes, said delivery tube deployment tube being configurable between a first position and a second position, the first position of said delivery tube deployment tube restraining said delivery tubes in the third stressed elongate shape, and the second position of said delivery tube deployment tube releasing said delivery tubes in the fourth unstressed shape, whereby each of said delivery tubes is controlled by said delivery tube deployment tube;

penetration means adjacent the third end of each of said delivery tubes, said penetration means being configured to pierce through a vascular structure in the endovascular pathway; and

insertion means adjacent to the third end of each of said delivery tubes, said insertion means being configured to place said surgical fastener through the vascular structure pierced by said penetration means;

wherein said delivery tube deployment tube is an inner sheath having first and second ends, being in surrounding configuration parallel to said the longitudinal axis of, and along a portion of, said delivery tube, being in slideable configuration from a first distance to a second distance from said the third end of said delivery tube, wherein withdrawal away from said the third end and advancement toward said the third end of said inner sheath controls the angle of said delivery tube.

Claim 13 (currently amended): Apparatus for ~~endovascular surgery~~ according to claim 1 further comprising an endovascular graft being in surrounding configuration to said the third end of said delivery tube wherein said surgical fastener delivered by said delivery tube attaches said endovascular graft to the vascular structure in the endovascular pathway.

Claim 14 (currently amended): Apparatus for ~~endovascular surgery according to claim 13~~ inserting a surgical fastener through a plurality of portions of material from within an endovascular pathway, said apparatus comprising:

a surgical fastener having first and second ends  
and made from a material which enables said fastener to  
be transformed from a first stressed elongate shape to  
a second unstressed shape upon the release of said  
fastener from a stressed condition, the first stressed  
elongate shape of said fastener enabling the first end  
to be extended through a plurality of layers of  
material, and with the second shape of the fastener  
being in the form of a spring with a plurality of coils  
around a spring axis, with the coils being spring  
biased towards each other along the spring axis with  
sufficient axial force to enable the coils on opposite  
sides of the layers of material to clamp the layers of  
material together along the spring axis;

a plurality of delivery tubes, each having third  
and fourth ends, and first and second tube portions  
adjacent to said third and fourth ends, respectively,  
and forming a longitudinal axis between the third and  
fourth ends, said delivery tubes each including a  
material which enables transformation from a third  
stressed elongate shape to a fourth unstressed shape  
upon the release from a stressed condition to an  
unstressed condition, the third stressed elongate shape  
enabling the third end to be extended through an

endovascular pathway, the fourth unstressed shape being formed with the first and second tube portions being configured at an angle to one another;

a delivery tube deployment tube directly engaging said delivery tubes, said delivery tube deployment tube being configurable between a first position and a second position, the first position of said delivery tube deployment tube restraining said delivery tubes in the third stressed elongate shape, and the second position of said delivery tube deployment tube releasing said delivery tubes in the fourth unstressed shape, whereby each of said delivery tubes is controlled by said delivery tube deployment tube;

penetration means adjacent the third end of each of said delivery tubes, said penetration means being configured to pierce through a vascular structure in the endovascular pathway; and

insertion means adjacent to the third end of each of said delivery tubes, said insertion means being configured to place said surgical fastener through the vascular structure pierced by said penetration means;

wherein said apparatus further includes a balloon catheter supported by a guide wire;

further wherein said balloon catheter provides balloon inflation to ensure full expansion of said graft to the wall of said vascular structure; and  
an endovascular graft being in surrounding  
configuration to the third end of said delivery tube  
wherein said surgical fastener delivered by said  
delivery tube attaches said endovascular graft to the  
vascular structure in the endovascular pathway.

Claim 15 (currently amended): Apparatus for ~~endovascular surgery~~ according to claim 13 wherein said endovascular graft is constructed of material comprising a synthetic polyester fiber of at least one member of a group consisting of polyethylene terephthalate and polytetrafluroethylene.

Claim 16 (currently amended): Apparatus for inserting a  
surgical fastener through a plurality of portions of  
material from within an endovascular pathway, said  
apparatus comprising:

a surgical fastener having first and second ends  
and made from a material which enables said fastener to  
be transformed from a first stressed elongate shape to  
a second unstressed shape upon the release of said

fastener from a stressed condition, the first stressed  
elongate shape of said fastener enabling the first end  
to be extended through a plurality of layers of  
material, and with the second shape of the fastener  
being in the form of a spring with a plurality of coils  
around a spring axis, with the coils being spring  
biased towards each other along the spring axis with  
sufficient axial force to enable the coils on opposite  
sides of the layers of material to clamp the layers of  
material together along the spring axis;

a plurality of delivery tubes, each having third  
and fourth ends, and first and second tube portions  
adjacent to said third and fourth ends, respectively,  
and forming a longitudinal axis between the third and  
fourth ends, said delivery tubes each including a  
material which enables transformation from a third  
stressed elongate shape to a fourth unstressed shape  
upon the release from a stressed condition to an  
unstressed condition, the third stressed elongate shape  
enabling the third end to be extended through an  
endovascular pathway, the fourth unstressed shape being  
formed with the first and second tube portions being  
configured at an angle to one another;

a delivery tube deployment tube directly engaging  
said delivery tubes, said delivery tube deployment tube  
being configurable between a first position and a  
second position, the first position of said delivery  
tube deployment tube restraining said delivery tubes in  
the third stressed elongate shape, and the second  
position of said delivery tube deployment tube  
releasing said delivery tubes in the fourth unstressed  
shape, whereby each of said delivery tubes is  
controlled by said delivery tube deployment tube;

penetration means adjacent the third end of each  
of said delivery tubes, said penetration means being  
configured to pierce through a vascular structure in  
the endovascular pathway; and

insertion means adjacent to the third end of each  
of said delivery tubes, said insertion means being  
configured to place said surgical fastener through the  
vascular structure pierced by said penetration means;  
wherein said endovascular graft is at least partially  
surrounded by a stent; wherein said endovascular graft  
is in surrounding configuration to the third end of  
said delivery tube; and

wherein said surgical fastener delivered by said  
delivery tube attaches said endovascular graft to the  
vascular structure in the endovascular pathway.

Claim 17 (currently amended): Apparatus for  
endovascular surgery according to claim 16 and for  
inserting a surgical fastener through a plurality of  
portions of material from within an endovascular  
pathway, said apparatus comprising:

a surgical fastener having first and second ends  
and made from a material which enables said fastener to  
be transformed from a first stressed elongate shape to  
a second unstressed shape upon the release of said  
fastener from a stressed condition, the first stressed  
elongate shape of said fastener enabling the first end  
to be extended through a plurality of layers of  
material, and with the second shape of the fastener  
being in the form of a spring with a plurality of coils  
around a spring axis, with the coils being spring  
biased towards each other along the spring axis with  
sufficient axial force to enable the coils on opposite  
sides of the layers of material to clamp the layers of  
material together along the spring axis;

a plurality of delivery tubes, each having third and fourth ends, and first and second tube portions adjacent to the third and fourth ends, respectively, and forming a longitudinal axis between the third and fourth ends, said delivery tubes each including a material which enables transformation from a third stressed elongate shape to a fourth unstressed shape upon the release from a stressed condition to an unstressed condition, the third stressed elongate shape enabling the third end to be extended through an endovascular pathway, the fourth unstressed shape being formed with the first and second tube portions being configured at an angle to one another;

a delivery tube deployment tube directly engaging said delivery tubes, said delivery tube deployment tube being configurable between a first position and a second position, the first position of said delivery tube deployment tube restraining said delivery tubes in the third stressed elongate shape, and the second position of said delivery tube deployment tube releasing said delivery tubes in the fourth unstressed shape, whereby each of said delivery tubes is controlled by said delivery tube deployment tube;

penetration means adjacent the third end of each  
of said delivery tubes, said penetration means being  
configured to pierce through a vascular structure in  
the endovascular pathway; and

insertion means adjacent to the third end of each  
of said delivery tubes, said insertion means being  
configured to place said surgical fastener through the  
vascular structure pierced by said penetration means;

wherein said stent is a partial exoskeleton  
surrounding said endovascular graft;

the apparatus further comprising an endovascular  
graft being in surrounding configuration to the third  
end of said delivery tube wherein said surgical  
fastener delivered by said delivery tube attaches said  
endovascular graft to the vascular structure in the  
endovascular pathway; and

wherein said endovascular graft is at least  
partially surrounded by a stent.

Claim 18 (currently amended): Apparatus for  
~~endovascular surgery according to claim 16 inserting a~~  
surgical fastener through a plurality of portions of  
material from within an endovascular pathway, said  
apparatus comprising:

a surgical fastener having first and second ends  
and made from a material which enables said fastener to  
be transformed from a first stressed elongate shape to  
a second unstressed shape upon the release of said  
fastener from a stressed condition, the first stressed  
elongate shape of said fastener enabling the first end  
to be extended through a plurality of layers of  
material, and with the second shape of the fastener  
being in the form of a spring with a plurality of coils  
around a spring axis, with the coils being spring  
biased towards each other along the spring axis with  
sufficient axial force to enable the coils on opposite  
sides of the layers of material to clamp the layers of  
material together along the spring axis;

a plurality of delivery tubes, each having third  
and fourth ends, and first and second tube portions  
adjacent to said third and fourth ends, respectively,  
and forming a longitudinal axis between the third and  
fourth ends, said delivery tubes each including a  
material which enables transformation from a third  
stressed elongate shape to a fourth unstressed shape  
upon the release from a stressed condition to an  
unstressed condition, the third stressed elongate shape  
enabling the third end to be extended through an

endovascular pathway, the fourth unstressed shape being formed with the first and second tube portions being configured at an angle to one another;

a delivery tube deployment tube directly engaging said delivery tubes, said delivery tube deployment tube being configurable between a first position and a second position, the first position of said delivery tube deployment tube restraining said delivery tubes in the third stressed elongate shape, and the second position of said delivery tube deployment tube releasing said delivery tubes in the fourth unstressed shape, whereby each of said delivery tubes is controlled by said delivery tube deployment tube;

penetration means adjacent the third end of each of said delivery tubes, said penetration means being configured to pierce through a vascular structure in the endovascular pathway; and

insertion means adjacent to the third end of each of said delivery tubes, said insertion means being configured to place said surgical fastener through the vascular structure pierced by said penetration means;

an endovascular graft being in surrounding configuration to the third end of said delivery tube wherein said surgical fastener delivered by said

delivery tube attaches said endovascular graft to the  
vascular structure in the endovascular pathway;  
wherein said endovascular graft is at least  
partially surrounded by a stent; and  
wherein said stent is a complete exoskeleton.

Claim 19 (currently amended): Apparatus ~~for~~  
~~endovascular surgery~~ according to claim 1 further  
comprising an outer endovascular delivery sheath being  
in slideable, surrounding configuration to selectively  
cover a portion of said delivery tube from ~~said the~~ the  
~~third end to said the~~ fourth end.

Claim 20 (currently amended): Apparatus ~~for~~  
~~endovascular surgery~~ according to claim 1 wherein the  
vascular structure is an aorta.

Claim 21 (currently amended): A method for inserting a  
surgical fastener through a plurality of portions of  
material from within an endovascular pathway, said  
method comprising:

providing apparatus for inserting a surgical  
fastener through a plurality of portions of material

from within an endovascular pathway, said apparatus comprising:

a surgical fastener having first and second ends and made from a material which enables said fastener to be transformed from a first stressed elongate shape to a second unstressed shape upon the release of said fastener from a stressed condition, said the first stressed elongate shape of said fastener enabling said the first end to be extended through a plurality of layers of material, and with said the second shape of the element being in the form of a spring with a plurality of coils around a spring axis, with said the coils being spring biased towards each other along said the spring axis with sufficient axial force ~~so as~~ to enable the coils on opposite sides of the layers of material to clamp the layers of material together along the spring axis;

a delivery tube having third and fourth ends, first and second tube portions adjacent to said the third and fourth ends, respectively, and forming a longitudinal axis between the third and fourth ends, said delivery tube including a material which enables transformation from a third stressed elongate shape to a fourth unstressed shape upon the release from a

stressed condition to an unstressed condition, said the third stressed elongate shape enabling said the third end to be extended through an endovascular pathway, with said the fourth unstressed shape being formed with said first and second tube portions being configured at an angle to one another;

a delivery tube deployment tube means directly engaging said delivery tube, said delivery tube deployment tube being configurable between a first position and a second position, said the first position of said delivery tube deployment tube means restraining said delivery tube in said the third stressed elongate shape, and said the second position of said delivery tube deployment releasing said delivery tube in said the fourth unstressed shape;

penetration means adjacent said the third end of said delivery tube, said penetration means being configured to pierce through a vascular structure in the endovascular pathway; and

insertion means adjacent to said the third end of said delivery tube, said insertion means being configured to place said surgical fastener through the vascular structure pierced by said penetration means;

placing said delivery tube adjacent said the

vascular structure, with said delivery tube being configured in said the third stressed elongate shape;

deploying said delivery tube from said the third elongate shape to said the forth elongate shape with said delivery tube deployment means, said the deployment of said delivery tube placing said the third end adjacent to the vascular structure in the endovascular pathway;

penetrating the vascular structure in the endovascular pathway with said penetration means, said the penetration of the vascular structure being performed at said the third end of said delivery tube; and

inserting said surgical fastener through the plurality of portions of material using said insertion means, said the insertion of said surgical fastener being performed from inside of said the vascular structure;

wherein the delivery tube deployment tube is an inner sheath having first and second ends, being in surrounding configuration parallel to the longitudinal axis of, and along a portion of, said delivery tube, being in slideable configuration from a first distance to a second distance from the third end of said

delivery tube, wherein withdrawal away from the third end and advancement toward the third end of said inner sheath controls the angle of said delivery tube, and the steps of deploying said delivery tube from the third elongate shape to the fourth elongate shape includes withdrawal of said inner sheath away from said third end of said delivery tube, and advancement of said inner sheath toward the third end of said delivery tube returns said delivery tube from the fourth elongate shape to the third elongate shape.

Claim 22 (currently amended): A method according to claim 21 wherein the step of placing said the delivery tube adjacent said vascular structure includes using a guide wire to position said delivery tube.

Claim 23 (canceled).

Claim 24 (currently amended): A method ~~for~~ according to claim 23 21 wherein the step of deploying said delivery tube from said the third elongate shape to said the fourth elongate shape is an incremental process and is directly proportional to the distance said inner sheath

is withdrawn relative to said the third end of said delivery tube.

Claim 25 (currently amended): A method ~~according to~~  
~~claim 21 for inserting a surgical fastener through a~~  
~~plurality of portions of material from within an~~  
~~endovascular pathway, said method comprising:~~

providing apparatus for inserting a surgical  
fastener through a plurality of portions of material  
from within an endovascular pathway, said apparatus  
comprising:

a surgical fastener having first and second  
ends and made from a material which enables said  
fastener to be transformed from a first stressed  
elongate shape to a second unstressed shape upon the  
release of said fastener from a stressed condition, the  
first stressed elongate shape of said fastener enabling  
the first end to be extended through a plurality of  
layers of material, and with the second shape of the  
element being in the form of a spring with a plurality  
of coils around a spring axis, with the coils being  
spring biased towards each other along the spring axis  
with sufficient axial force to enable the coils on

opposite sides of the layers of material to clamp the  
layers of material together along the spring axis;  
a delivery tube having third and fourth ends,  
first and second tube portions adjacent to the third  
and fourth ends, respectively, and forming a  
longitudinal axis between the third and fourth ends,  
said delivery tube including a material which enables  
transformation from a third stressed elongate shape to  
a fourth unstressed shape upon the release from a  
stressed condition to an unstressed condition, the  
third stressed elongate shape enabling the third end to  
be extended through an endovascular pathway, with the  
fourth unstressed shape being formed with said first  
and second tube portions being configured at an angle  
to one another;

a delivery tube deployment tube directly engaging  
said delivery tube, said delivery tube deployment tube  
being configurable between a first position and a  
second position, the first position of said delivery  
tube deployment tube restraining said delivery tube in  
the third stressed elongate shape, and the second  
position of said delivery tube deployment tube  
releasing said delivery tube in the fourth unstressed  
shape;

penetration means adjacent the third end of said delivery tube, said penetration means being configured to pierce through a vascular structure in the endovascular pathway; and

insertion means adjacent to the third end of said delivery tube, said insertion means being configured to place said surgical fastener through the vascular structure pierced by said penetration means;

placing said delivery tube adjacent the vascular structure, with said delivery tube being configured in the third stressed elongate shape;

deploying said delivery tube from the third elongate shape to the forth elongate shape with said delivery tube deployment means, the deployment of said delivery tube placing the third end adjacent to the vascular structure in the endovascular pathway;

penetrating the vascular structure in the endovascular pathway with said penetration means, the penetration of the vascular structure being performed at the third end of said delivery tube; and

inserting said surgical fastener through the plurality of portions of material using said insertion means, the insertion of said surgical fastener being performed from inside of the vascular structure;

wherein said penetration means used in the step of penetrating the vascular structure in the endovascular pathway is a sharpened cutting edge formed on said the third end of said delivery tube.

Claim 26 (currently amended): A method according to claim 21 wherein said penetration means used in the step of penetrating the vascular structure in the endovascular pathway is a sharpened cutting edge formed on said the first end of said surgical fastener.

Claim 27 (currently amended): A method according to claim 21 wherein said insertion means used in the step of inserting said surgical fastener through the plurality of portions of material is a plunger sized to slidingly move through said delivery tube deployment tube to advance said surgical fastener toward said the third end of said delivery tube.

Claim 28 (currently amended): A method according to claim 21 further comprising the step of withdrawing said delivery tube away from the plurality of portions of material to release said surgical fastener from said the stressed condition on said the second end of said

surgical fastener whereby said surgical fastener clamps the plurality of layers of the material together.

Claim 29 (original): A method according to claim 21 wherein one of said plurality of material comprises a vascular structure, and further wherein another of said plurality of portions of material comprises a graft.

Claim 30 (currently amended): A method ~~according to~~  
~~claim 29 for inserting a surgical fastener through a~~  
~~plurality of portions of material from within an~~  
~~endovascular pathway, the method comprising:~~

providing an apparatus comprising:  
a surgical fastener having first and second  
ends and made from a material which enables said  
fastener to be transformed from a first stressed  
elongate shape to a second unstressed shape upon the  
release of said fastener from a stressed condition, the  
first stressed elongate shape of said fastener enabling  
the first end to be extended through a plurality of  
layers of material, and with the second shape of the  
element being in the form of a spring with a plurality  
of coils around a spring axis, with the coils being  
spring biased towards each other along the spring axis

with sufficient axial force to enable the coils on  
opposite sides of the layers of material to clamp the  
layers of material together along the spring axis;  
a delivery tube having third and fourth ends,  
first and second tube portions adjacent to the third  
and fourth ends, respectively, and forming a  
longitudinal axis between the third and fourth ends,  
said delivery tube including a material which enables  
transformation from a third stressed elongate shape to  
a fourth unstressed shape upon the release from a  
stressed condition to an unstressed condition, the  
third stressed elongate shape enabling the third end to  
be extended through an endovascular pathway, with the  
fourth unstressed shape being formed with said first  
and second tube portions being configured at an angle  
to one another;

a delivery tube deployment tube directly engaging  
said delivery tube, said delivery tube deployment tube  
being configurable between a first position and a  
second position, the first position of said delivery  
tube deployment tube restraining said delivery tube in  
the third stressed elongate shape, and the second  
position of said delivery tube deployment tube

releasing said delivery tube in the fourth unstressed shape;

penetration means adjacent the third end of said delivery tube, said penetration means being configured to pierce through a vascular structure in the endovascular pathway; and

insertion means adjacent to the third end of said delivery tube, said insertion means being configured to place said surgical fastener through the vascular structure pierced by said penetration means;

placing said delivery tube adjacent the vascular structure, with said delivery tube being configured in the third stressed elongate shape;

deploying said delivery tube from the third elongate shape to the fourth elongate shape with said delivery tube deployment means, the deployment of said delivery tube placing the third end adjacent to the vascular structure in the endovascular pathway;

penetrating the vascular structure in the endovascular pathway with said penetration means, the penetration of the vascular structure being performed at the third end of said delivery tube; and

inserting said surgical fastener through the plurality of portions of material using said insertion

means, the insertion of said surgical fastener being  
performed from inside of the vascular structure;

wherein one of the plurality of portions of  
material comprises a vascular structure, and further  
wherein another of the plurality of portions of  
material comprises a graft; and

wherein said apparatus for inserting a surgical fastener is positioned in the vascular structure prior to placement of said graft adjacent to the vascular structure.

Claim 31 (currently amended): A method according to  
claim 29 30 wherein said graft is placed in said  
vascular structure prior to positioning said apparatus  
for inserting a surgical fastener in said vascular  
structure.

Claims 32-35 (canceled).